GENERAL INDEX

A

Abbe, Lucy B., Phloem of white pine and other coniferous species 695

Addicott, F. T., Vitamin B_1 in relation to meristematic activity of isolated pea roots 836

Age of plant and effect of photoperiodic treatments 245

Albertson, F. W., Major changes in grassland as a result of continued drought 576

Anatomy, of auxin treated etiolated seedlings of Pisum sativum 167; of Moraceae and their presumed allies 1

Anderson, Edgar, The American sugar maples. I. Phylogenetic relationships, as deduced from a study of leaf variation 312

Anderson, L. E., Plant succession on granite rock in eastern North Carolina 750

Aristolochiaceae, anatomy 64

Atavistic leaf forms of various species of trees 563

Auxin, distribution in seedlings and its bearing on bud inhibition 133; transport of 465; auxin treated etiolated seedlings of Pisum sativum 167

Avena coleoptiles in culture, tropic responses 186

Avery, G. S., Jr., Growth and tropic responses of excised Avena coleoptiles in culture 186

B

Babcock, E. B., "The American species of Crepis" 691

Barber, Roberta, Increasing the fertility of Neurospora by selective inbreeding 592

Barton Wright, E. C., "General plant physiology" 253

Beal, J. M., Cytological studies in relation to the classification of the genus Calochortus 528; book reviews 254, 435, 875

Bean cuttings, growth and metabolism subsequent to rooting with indoleacetic acid 627; metabolism as affected by indoleacetic acid 298

Beanfield, Virginia, Increasing the fertility of Neurospora by selective inbreeding 592

Berberidaceae, embryology 270

Betulaceae, anatomy 35

Bonner, D. M., Relation of environment and of the physical properties of synthetic growth substances to the growth reaction 200

Bonner, James, Photoperiodism in relation to hormones as factors in floral initiation and development 388; vitamin B_1 and the growth of green plants 226

Borthwick, H. A., Effectiveness of photoperiodic treatments of plants of different age 245; effect of photoperiod on development and metabolism of the Biloxi soy bean 651; photoperiodic perception in Biloxi soy beans 374

Broun, M., "Index to North American ferns" 693

Brown, H. B., "Cotton" 876

Brown, H. P., "Trees of northeastern United States; native and naturalized" 436

Brunelliaceae, anatomy 58

Brunstetter, B. C., Colorimetric methods for the quantitative estimation of indole-(3)acetic acid 802

Bud inhibition and auxin distribution in seedlings 133

Buros, O. K., "Research and statistical methodology books and reviews, 1933–1938" 694

Buxaceae, anatomy 51

C

Cabbage plants, histological responses to indole(3)acetic acid 347

Calcium deficiency and respiration in etiolated seedlings 828

Calochortus, cytological studies in relation to classification 528
Calycanthaceae, anatomy 63
Carbohydrate translocation in Cuthbert raspberry 439
Carboniferous seeds, Illinois plant remains 324; structure of 769
Carlson, Margery C., Origin and development of shoots from the tips of roots of Pogonia ophioglossoides 215
Casuarinaceae, anatomy 33
Ceratophyllaceae, embryology 271
Chamberlain, C. J., book review 694
Cherry fruit, histology of development 723
Cholnoky, L. V., "Die chromatographische Adsorptionsmethode" 435
Chromosome number, relation with stomata in Coffea 817
Cimicifuga racemosa, embryology 262
Classification of Calochortus, cytological studies in relation to 528
Coal fields, Carboniferous seeds from 769
Coffea, chromosome number and stomata 817
Colorimetric methods for quantitative estimation of indoleacetic acid 802
Coniferous species, phloem of 695
Cooper, D. C., Development of megagametophyte in Erythronium albidum 862; embryology of Pisum sativum 123
Cooper, W. C., Vitamins and the germination of pollen grains and fungus spores 844
Couch, J. N., "The genus Septobasidium" 433
Crafts, A. S., Phloem of white pine and other coniferous species 695
Cunoniaceae, anatomy 59
Cytological studies in relation to classification of Calochortus 528
Cytology of dormancy in Phaseolus and Zea 485

D

Darrah, W. C., "Principles of paleobotany" 876
Dates, effect of growth substances on inflorescences 868
Davies, L. J., "Common British grasses and legumes" 694
Dawson, R. F., Nitrogen nutrition and nicotine synthesis in tobacco 336
Development, and structure of watermelon seedling 100; of megagametophyte in Erythronium 862
Dichapetalaceae (or Chailletiaceae) anatomy 60
Dill, responses to photoperiod 853
Disease resistance of tobacco 276
Distribution and hybridization of Vernonia in Missouri 548
Dormancy in Phaseolus and Zea 485
Drought, major changes in grassland as result of 576
Du Puy, W. A., "The nation's forests" 438

E

Earle, T. T., Embryology of certain Ranales 257
Elasticity, effects of anesthetics on protoplasmic structure of Spirogyra 238
Embryology, of certain Ranales 257; of Pisum sativum 123
Engard, C. J., Translocation of carbohydrates in the Cuthbert raspberry 439
Englerth, Harriet W., Pits in the hapteres of Nereocystis 370
Environment and physical properties of synthetic growth substances to growth reaction 200
Erythronium, development of megagametophyte 862
Escalloniaceae, anatomy 56
Eucommiaceae, anatomy 53

F

Fagaceae, anatomy 38
Flahault, C., "La Distribution géographique des végétaux dans la région méditerranéenne française" 693
Floral initiation, photoperiodism in relation to hormones as factors in 388
Flowering and phloem development 600
Franco, C. M., Relation between chromosome number and stomata in Coffea 817
Frey-Wisslingh, A., "Submikroskopische Morphologie des Protoplasmas und seiner Derivate" 690
Fungus spores, germination affected by vitamins 844

G

Gardner, F. E., Effect of certain growth substances on inflorescences of dates 868

Germination, of pollen grains, affected by vitamins 844; of watermelon seedling 100

Goldberg, Ethel, Histological responses of cabbage plants grown at different levels of nitrogen nutrition to indole(3)acetic acid 347

Gourley, J. H., book review 436

Grassland, major changes as result of drought 576

Greene, Jesse, Vitamin B_1 and the growth of green plants 226

Grey, C. H., "Hardy bulbs, Vol. III: Liliaceae" 875

Grossulariaceae, anatomy 55

Growth, and metabolism of bean cuttings subsequent to rooting with indoleacetic acid 627; of green plants and vitamin B_1 226

Growth substances, effect on inflorescences of dates 868; relation of environment and physical properties to growth reaction 200

H

Hamamelidaceae, anatomy 45

Hamner, K. C., Photoperiodic responses of dill, a very sensitive long day plant 853; photoperiodism in relation to hormones as factors in floral initiation and development 388; book reviews 692, 694

Haupt, A. W., "An introduction to botany" 694

Hayward, H. E., Transplantation experiments with peas 788; "The structure of economic plants" 436

Hector, J. M., "Introduction to the botany of field crops" 692

Histological, responses of cabbage plants to indole(3)acetic acid 347; study of developing fruit of the sour cherry 723

Hormones as factors in floral initiation and development 388; *see also under* Growth promoting substances

Horseradish, effects of indoleacetic and naphthylacetic acids on development of buds and roots 500

Hubricht, Leslie, The American sugar maples. I. Phylogenetic relationships, as deduced from a study of leaf variation 312

Hufford, G. N., Development and structure of the watermelon seedling 100

Hybridization and distribution of Vernonia in Missouri 548

Hydrangeaceae, anatomy 54

Hylander, C. J., "The world of plant life" 873

I

Inbreeding, increasing fertility of Neurospora 592

Indoleacetic acid, affecting nitrogen and carbohydrate metabolism of bean cuttings 298; colorimetric methods for estimation 802; effect on development of buds and roots in horseradish 500; growth and metabolism of bean cuttings subsequent to rooting with 627

Indole(3)acetic acid, histological responses of cabbage plants grown at different levels of nitrogen nutrition 347

J

Jewett, Frances L., Relation of soil temperature and nutrition to the resistance of tobacco to Thielavia basicola 276

Juglandaceae, anatomy 42

K

Korstian, C. F., book review 436

Kraus, E. J., book reviews 693, 694, 876

Kubiëna, W. L., "Micropedology" 434

L

La Rue, C. D., Growth and tropic responses of excised Avena coleoptiles in culture 186

Leaf variation of maples, indicating phylogenetic relationship 312

Lindau, G., "Hilfsbuch für das Sammeln und Präparieren der niederen Kryptogammen" 876

Lindegren, C. C., Increasing the fertility of Neurospora by selective inbreeding 592

Lindner, R. C., Effects of indoleacetic and naphthylacetic acids on development of buds and roots in horseradish 500

Loomis, W. E., "Experiments in plant physiology" 875

M

Magnoliaceae, embryology 267

Magnolia grandiflora, embryology 257

Maples, American sugar 312
Martin, G. W., book review 433
Meristematic activity of pea roots in relation to vitamin B_1 836
Metabolism, of bean cuttings as affected by indoleacetic acid 298; of soy bean, effect of photoperiod on development 651
Method, micro-Kjeldahl including nitrates 250
Methods, colorimetric, for estimating indoleacetic acid 802
Middendorf, F. G., Cytology of dormancy in Phaseolus and Zea 485
Miller, E. C., book review 875
Mitchell, J. W., Colorimetric methods for the quantitative estimation of indole-(3)acetic acid 802; growth and metabolism of bean cuttings subsequent to rooting with indoleacetic acid 627
Mitchell, P. H., "General physiology" 253; "Laboratory manual of general physiology" 253
Moore, R. H., A micro-Kjeldahl method including nitrates 250
Moraceae, comparative anatomy 1
Mullison, W. R., Effect of calcium deficiency on respiration of etiolated seedlings 828
Myrothamnaceae, anatomy 50

N

Naphthylacetic acid, effect on development of buds and roots in horseradish 500
Naylor, A. W., Photoperiodic responses of dill, a very sensitive long day plant 853
Nebel, B. R., book review 690
Neidle, Edith K., Nitrogen nutrition in relation to photoperiodism in Xanthium pennsylvanicum 607
Nereocystis, pits in the hapteres 370
Neurospora, increasing fertility by selective inbreeding 592
Nitrates, micro-Kjeldahl method including 250
Nitrogen, and carbohydrate metabolism of bean cuttings as affected by indoleacetic acid 298; histological responses of cabbage plants 347
Nitrogen nutrition, and nicotine synthesis in tobacco 336; in relation to photoperiodism in Xanthium 607
Nixon, R. W., Effects of certain growth substances on inflorescences of dates 868
Noé, A. C., book review 876
Northen, H. T., Protoplasmic structure in Spirogyra. III. Effects of anesthetics on protoplasmic elasticity 238; studies of protoplasmic structure in Spirogyra. IV. Effects of temperature on protoplasmic elasticity 619
Nutrition and disease resistance of tobacco 276
Nymphaeaceae, embryology 270

O

Oliver, Elizabeth S., Atavistic leaf forms of various species of trees 563
Olmsted, C. E., book reviews 437, 438, 691, 693, 873
Oosting, H. J., Plant succession on granite rock in eastern North Carolina 750
Origin and development of shoots from tips of roots of Pogonia 215

P

Parker, M. W., Effectiveness of photoperiodic treatments of plants of different age 245; effect of photoperiod on development and metabolism of the Biloxi soy bean 651; photoperiodic perception in Biloxi soy beans 374
Pea roots, meristematic activity in relation to vitamin B_1 836
Peas, transplantation experiments 788
Phaseolus, cytology of dormancy 485
Phloem, development and flowering 600; of white pine 695
Photoperiod, effect on development and metabolism of soy bean 651
Photoperiodic, perception in Biloxi soy beans 374; responses of dill, a sensitive long day plant 853; treatments of plants of different age 245
Photoperiodism, in relation to hormones as factors in floral initiation and development 388; in Xanthium in relation to nitrogen nutrition 607
Phylogenetic relationships of maples indicated by leaf variation 312
Phylogeny of angiosperms 65
Pine, phloem 695
Pisum sativum, anatomy of auxin treated etiolated seedlings 167; embryology 123

Plant remains from the Carboniferous of Illinois 324
Platanaceae, anatomy 52
Pogonia, origin and development of shoots from root tips 215
Pollen grains, germination affected by vitamins 844
Protoplasmic structure in Spirogyra 238, 619

R

Ranales, embryology 257
Ranunculaceae, embryology 268
Raspberry, translocation of carbohydrates 439
Reed, Fredda D., Notes on some plant remains from the Carboniferous of Illinois 324; structure of some Carboniferous seeds from American coal fields 769
Relation of environment to growth reaction 200
Respiration and calcium deficiency in etiolated seedlings 828
Rhoipteleaceae, anatomy 31
Roberts, R. H., Phloem development and flowering 600
Robinson, Florence B., "Useful trees and shrubs" 437
Rock, plant succession on 750
Rosaceae, anatomy 61

S

Scharfetter, R., "Das Pflanzenleben der Ostalpen" 693
Schussnig, B., "Vergleichende Morphologie der niederen Pflanzen" 432
Scott, Flora M., Anatomy of auxin treated etiolated seedlings of Pisum sativum 167
Seifriz, Wm., "The physiology of plants" 873
Senn, H. A., "Chromosome number relationship in Leguminosae" 435
Shull, C. A., "Experiments in plant physiology" 875; book reviews 253, 872, 873, 874
Smith, G. M., "Cryptogamic botany: Vol. I. Algae and fungi" 254; "Vol. II. Bryophytes and pteridophytes" 255; book review 432
Snedecor, G. W., "Statistical methods" 874
Soy bean, effect of photoperiod on development and metabolism 651; photoperiodic perception in 374
Spirogyra, protoplasmic structure 238, 619
Stachyuraceae, anatomy 49
Stebbins, G. L., Jr., "The American species of Crepis" 691
Steyermark, Cora S., Distribution and hybridization of Vernonia in Missouri 548
Stomata, relation with chromosome number in Coffea 817
Struckmeyer, B. Esther, Phloem development and flowering 600
Structure of Carboniferous seeds 769
Stuart, N. W., Growth and metabolism of bean cuttings subsequent to rooting with indoleacetic acid 627; nitrogen and carbohydrate metabolism of kidney bean cuttings as affected by treatment with indoleacetic acid 298
Succession on granite rock 750

T

Taylor, I. R., "Laboratory manual of general physiology" 253
Temperature, effect on protoplasmic structure in Spirogyra 619; of soil, and disease resistance of tobacco 276
Thomas, J. O., "Common British grasses and legumes" 694
Tippo, Oswald, Comparative anatomy of the Moraceae and their presumed allies 1
Tobacco, disease resistance affected by soil temperature and nutrition 276; nitrogen nutrition and nicotine synthesis 336
Translocation of carbohydrates in the Cuthbert raspberry 439
Transplantation experiments with peas 788
Transport of auxin 465
Tropic responses of excised Avena coleoptiles in culture 186
Tukey, H. B., Histological study of the developing fruit of the sour cherry 723

U

Ulmaceae, anatomy 23
Umbreit, W. W., book review 434
Urticaceae, anatomy 28

V

Van Dersal, W. R., "Native woody plants of the United States" 693

Van Overbeek, J., Auxin distribution in seedlings and its bearing on the problem of bud inhibition 133

Verdoorn, Fr., "Manual of pteridology" 256

Vernonia, distribution and hybridization in Missouri 548

Vitamin B_1, and growth of green plants 226; in relation to meristematic activity of isolated pea roots 836

Vitamins and germination of pollen grains 844

Voth, P. D., book reviews 693, 876

W

Walker, Elda R., book review 255

Watermelon seedling, development and structure 100

Weaver, J. E., Major changes in grassland as a result of continued drought 576

Went, F. W., Experiments on the transport of auxin 465; transplantation experiments with peas 788

White, Ralph, Experiments on the transport of auxin 465

X

Xanthium, nitrogen nutrition in relation to photoperiodism 607

Y

Young, J. O., Histological study of the developing fruit of the sour cherry 723

Z

Zechmeister, L., "Die chromatographische Adsorptionsmethode" 435; "Fortschritte der Chemie organischer Naturstoffe" 872

Zea, cytology of dormancy 485

Zscheile, F. P., book review 435